

Candidacy Examination

The candidacy examination aims to test a student's readiness to proceed with their dissertation project by **assessing the student's critical thinking ability and their trajectory toward completing the Ph.D.**

The candidacy exam is typically taken during the last semester of coursework, most commonly the Spring semester of a student's second year in a Ph.D. program. The department allows for two formats of the candidacy exam: *topics-format* and *grant-format*. However, the exam will be individualized to a student's research area and background, regardless of format.

The examination seeks to test the student's proficiency in the following areas:

- mastery of concepts in their field
- ability to formulate logical and testable hypotheses
- ability to design studies to answer specific questions that use feasible methodology and appropriate controls
- capacity to critically evaluate content (literature, data, study design) and make appropriate conclusions
- aptitude to coherently write and orally present their ideas

Topics-format exam: The student meets with their guidance committee to decide on three topic areas for evaluation in the candidacy exam and which committee member will write the questions for each topic area. The topic areas should be relevant to the student's degree program and research area. Then, each committee member assigns readings to the student (e.g. book chapters, review articles, primary research articles) on the relevant topic areas. The readings will be given to the student by a deadline determined by the committee; preferably within 2 weeks of the initial meeting. The student has 5-6 weeks to read the material and prepare for the examination. Typically, students are tested on each topic on separate days and given approximately four to six hours to complete the test on each day, excluding time for breaks, lunch, etc. The assigned work from each examiner should not exceed that which can be completed during a normal business day. While one committee member may be assigned to generate questions on a specific topic area, all committee members should receive a copy of the answers following completion of the exam.

Grant-format exam: The student submits 2-3 potential topics for the grant proposal to their guidance committee. The topics should be different from the student's dissertation research but may be on a related topic. The goal is to test the student's critical thinking skills; thus, the topic should be sufficiently different from the topics extensively discussed within the student's research lab. For each potential topic, the student should provide a brief abstract describing the background, the questions and hypotheses the student proposes to address. Once the committee and the student agree on a topic, the student has 5-6 weeks to write a grant proposal that includes: Specific Aims/Project summary (Maximum one page); Research Strategy/Project Description (6-8 pages); and Literature Cited (no limit). Committee members are encouraged to guide the student on the general structure of the grant proposal and its layout and to

provide examples of good grantsmanship. Still, they should not assist or give feedback to the student regarding exam content (e.g., development of the hypothesis, design of studies, etc.).

Written exam: Following completion of the written portion of the exam, regardless of format, the committee meets to discuss whether the student demonstrated satisfactory proficiency in the relevant areas in the written portion of the exam and may, therefore, proceed to the oral exam. The results of the written portion of the examination will be one of the following:

- **Proceed:** The student proceeds to the oral exam.
- **Rewrite:** If one or more committee members determine significant deficits in the written exam, then the student can be required to retake part of, or the entire written portion of the candidacy exam. The committee must provide examples to the student where they did not meet expectations and provide guidance on how to remedy the areas of concern, and specify conditions that need to be satisfied by the student in order to proceed (e.g. adding clarity to the written document, revising the answer to a question in the topics format). All committee members must review all answers and/or revisions on a retest. The student's performance on the retest must be satisfactory (generally acceptable with only minor concerns that can be easily addressed) to the majority of committee members with no more than one dissenting opinion to proceed to the oral exam. The student can also request to rewrite if they can demonstrate that personal or health issues affected their performance in the written portion of the candidacy exam. The student and their committee should agree on a date for the retest within the four weeks following the submission of the written exam.
- **Fail:** The student will fail the candidacy exam altogether if they elect not to take a retest or if all committee members find the answers to the reexamination unsatisfactory. The student will have the option to withdraw from the program or will be dismissed at the end of the semester in this case.

Oral Exam: Upon completing the written portion of the candidacy exam to the committee's satisfaction, a student proceeds to an oral examination. The oral exam allows students to clarify and expand on their written answers, and for committee members to probe a student's depth of knowledge on exam-related topics. Although the exact questioning format is at the discretion of the committee, the oral exam should not exceed two hours in length.

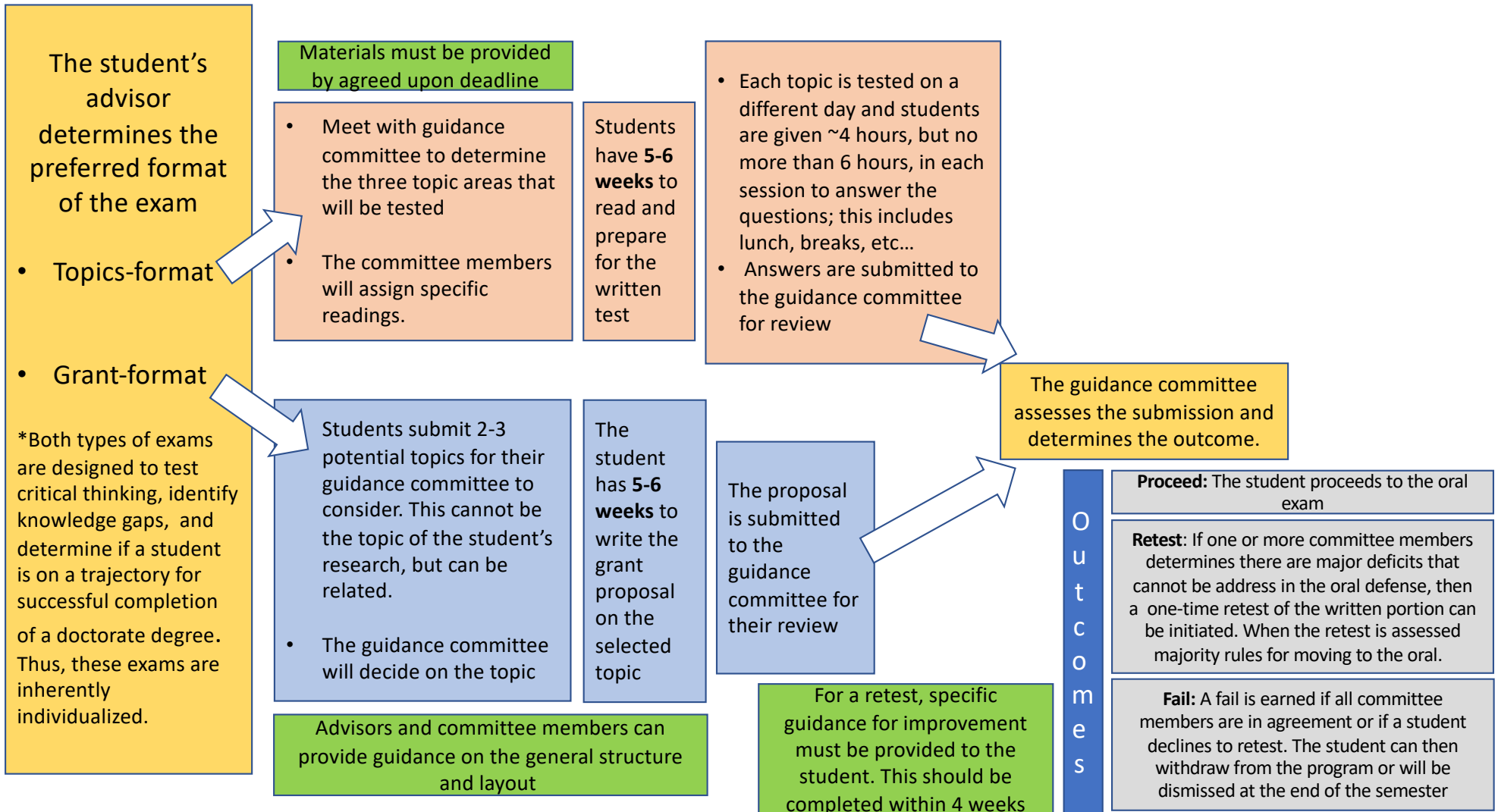
There are four possible outcomes to the oral candidacy exam:

- **Pass:** the student achieves candidacy status.
- **Conditional pass:** If one or more committee members express minor concerns in the answers to their questions but consider that the student can easily address them, the examination committee can specify conditions that need to be satisfied by the student to gain candidate status (e.g. presenting or attending a lecture on a select topic, or meeting with a faculty member to discuss the student's answers in detail, etc.). These conditions must be specific, measurable, and achievable in a reasonable timeline (e.g. within a month of the oral exam), but cannot include a

revising/rewriting of the written portion of the exam. When the conditions are satisfied, the exam is completed, a pass is earned, and the student achieves candidacy status.

- **Suspend (retest):** If one or more committee members determine significant deficits in the oral exam that the student cannot easily address, then the mentor may elect to suspend the exam. The meeting will be adjourned, and the student will be required to retake the oral portion of the candidacy exam at a later date. The committee must provide examples to the student where they did not meet expectations and provide guidance on how to remedy the areas of concern before the retest. All committee members are expected to contribute to questioning on a retest. A retest should be completed no longer than one month after the original oral exam date. The student's performance on the oral retest must be satisfactory (generally acceptable with only minor concerns that can be easily addressed) to the majority of committee members with no more than one dissenting opinion to pass and achieve candidacy status.
- **Fail:** The student will fail the candidacy exam altogether if they elect not to take a retest of the oral portion of the candidacy exam or if all the committee members find the answers to the reexamination unsatisfactory. The student will have the option to withdraw from the program or will be dismissed at the end of the semester in this case.

Biological Sciences Candidacy Exam



The oral exam allows students to clarify and expand on their written answers, and for committee members to probe a student's depth of knowledge on exam-related topics.

Although the exact questioning format is at the discretion of the committee, the oral exam should not exceed two hours in length.

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Pass: The student achieves candidacy status

Conditional Pass: If the committee determines that the student has some knowledge deficits they can make recommendations that are time-specific (can be completed within one semester) and achievable; this cannot include making additional changes to the written exam. Once the conditions are met the student has earned a pass and achieves candidacy status.

Suspend (retest): If one or more committee members determines that the oral exam was lacking then the mentor may elect to suspend the exam. The student's performance on the oral retest must be satisfactory (generally acceptable with only minor concerns that can be easily addressed) to the majority of committee members with no more than one dissenting opinion to pass and achieve candidacy status.

Fail: A fail is earned if all committee members are in agreement or if a student declines to retest or does not complete the requirements associated with the conditional pass. The student will then exit the program or will be dismissed at the end of the semester

For a retest, specific guidance for improvement must be provided to the student. This should be completed within 1 month of the original oral exam date.